Work Order ID 108046

October-07-13 9:09:58 AM

108046

Item ID: D2360 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Litter Tie Down Bracket

Start Date: 10/07/13 **Start Qty:** 4.00 *4*

Required Date: 10/07/13 **Req'd Qty:** 4.00 *4*

Reference:

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** MLJ **Date:** 13-10-08 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D2341	Rev F								
D2360	Rev D								
100	BAND SAW	0.00	MH	B/10/09		4	Ø		
100									
Bandsaw	**Memo**	0.00							
Jeaspa Bandsaw	Cut blanks: 12.65" Long								
110	HAAS CNC VERTICAL MACHINING #1	0.00	MH	B/10/12					
110									
HAAS 1	**Memo**	0.00							
HAAS CNC vertical machine #1	Machine as per Folio D2341 and Dwg D2341 2-Deburr								

NCR -7

NCR: (Yes) / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: MH Date: 13/11/29

Work Order: 108046

Part No. D ~~2341~~ 2360

NCR No. 13-3272

DISPOSITION

Rework [ ]
Scrap [X]
Use-as-is [ ]
Work Order Update [ ]

AGAINST DEPARTMENT/PROCESS

Skid-tube [ ] Crosstube [ ] Water Jet [ ] Engineering [ ]
Machining [X] Small Fab [ ] Prod. Eng. Coor. [ ] Quality [ ]
Thermoforming [ ] Finishing [ ] Rec/Store/Packaging [ ] Other [ ]
Large Fab [ ] Composite [ ] Supplier [ ]

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	[ ]	13/10/12	110	1	took "X" origin in wrong place. RL no Reverification Done Prior to Run Operator ERROR.	QS7042 13/11/22	Scrap and Destroy replaced with B 107076 $15.05	MH 13/10/12	13/11/22	QS7043 13/11/28
Equip/Tooling	[ ]									
Operator	[X]									
Material	[ ]									
Setup	[ ]									
Other	[ ]									
Process	[ ]									
Supplier	[ ]									
Training	[ ]									
Unapproved	[ ]									

FAULT CATEGORY

Landing Gear

- [ ] Bending
- [ ] Centre Not Concentric to O/S
- [ ] Cracks
- [ ] Crushed/Crimped
- [ ] Cuffs
- [ ] Heat Treat
- [ ] Inspection Strip in Tube
- [ ] Ripples in Bend
- [ ] Torque Waves in Extrusion
- [ ] Turning Sequence
- [ ] Wave/Twist in Tube

General

- [ ] Bend
- [ ] BOM/Route
- [ ] Broken/Damaged
- [ ] Burrs
- [ ] Contamination
- [ ] Countersink
- [ ] Cut Too Short
- [ ] Drill Holes
- [ ] Drawing
- [ ] Finish
- [ ] Folio
- [ ] Grain
- [ ] Hardware
- [ ] Inspection Incomplete
- [ ] Instructions Incomplete/Unclear
- [ ] Maintenance
- [ ] Mislabeled
- [ ] Misread
- [X] Offset
- [ ] Out of Calibration
- [ ] Out of Sequence
- [ ] Outside Dimensions
- [ ] Ovalized
- [ ] Over/Under tolerance
- [X] Part Incorrect
- [ ] Part Lost/Missing
- [ ] Part Moved
- [ ] Positioned Wrong
- [ ] Power Loss/Surge
- [ ] Pressure/Forced
- [ ] Temperature/Cure
- [ ] Weld
- [ ] Wrong Stock Pulled
- [ ] Other

Work Order ID 108046

October-07-13 9:09:58 AM

108046

Item ID: D2360 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Litter Tie Down Bracket

Start Date: 10/07/13 **Start Qty:** 4.00 *4* **Cust Item ID:**

Required Date: 10/07/13 **Req'd Qty:** 4.00 *4* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
120									
QC	**Memo**	0.00	ank/MH	13/10/12					
Quality Control									
130	QC8- Inspect parts - second check	0.00							
130						4	0		
QC	**Memo**	0.00	DAS 40 9-89	13/10/16					
Quality Control									
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140						4		13·10·17	
HandFinish	**Memo**	0.00							
Hand Finishing									

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: [illegible] Date: 13/12/05

QA Closed: [illegible] Date: 13/11/29

Work Order: 108046

Part No. D2360

NCR No. 13-3273

DISPOSITION

- Rework [ ]
- Scrap [ ]
- Use-as-is [X]
- Work Order Update [ ]

AGAINST DEPARTMENT/PROCESS

- Skid-tube [ ]
- Machining [X]
- Thermoforming [ ]
- Large Fab [ ]
- Crosstube [ ]
- Small Fab [ ]
- Finishing [ ]
- Composite [ ]
- Water Jet [ ]
- Prod. Eng. Coor. [ ]
- Rec/Store/Packaging [ ]
- Supplier [ ]
- Engineering [ ]
- Quality [ ]
- Other [ ]

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data [ ] Equip/Tooling [ ] Operator [✓] Material [ ] Setup [ ] Other [ ] Process [ ] Supplier [ ] Training [ ] Unapproved [ ]	13/10/15	110	1	Position of holes are under Tolerance Re: vise wasn't straight when the operator machined the parts. / Operator Didn't Realize Before working.	DAS 12 ~~9-89~~ 13/10/16	Profile is at angle such that one side is 0.015 below nominal in height. Acceptable. No effect on strength or fit.	~~DAS~~ 12 ~~9-89~~ 13/10/16	DAS 40 9-89 13/10/16	DAS 16 9-89 13/11/25

FAULT CATEGORY

Landing Gear

- [ ] Bending
- [ ] Centre Not Concentric to O/S
- [ ] Cracks
- [ ] Crushed/Crimped
- [ ] Cuffs
- [ ] Heat Treat
- [ ] Inspection Strip in Tube
- [ ] Ripples in Bend
- [ ] Torque Waves in Extrusion
- [ ] Turning Sequence
- [ ] Wave/Twist in Tube

General

- [ ] Bend
- [ ] BOM/Route
- [ ] Broken/Damaged
- [ ] Burrs
- [ ] Contamination
- [ ] Countersink
- [ ] Cut Too Short
- [X] Drill Holes
- [ ] Drawing
- [ ] Finish
- [ ] Folio
- [ ] Grain
- [ ] Hardware
- [ ] Inspection Incomplete
- [ ] Instructions Incomplete/Unclear
- [ ] Maintenance
- [ ] Mislabeled
- [ ] Misread
- [ ] Offset
- [ ] Out of Calibration
- [ ] Out of Sequence
- [ ] Outside Dimensions
- [ ] Ovalized
- [ ] Over/Under tolerance
- [ ] Part Incorrect
- [ ] Part Lost/Missing
- [ ] Part Moved
- [ ] Positioned Wrong
- [ ] Power Loss/Surge
- [ ] Pressure/Forced
- [ ] Temperature/Cure
- [ ] Weld
- [ ] Wrong Stock Pulled
- [ ] Other

Item ID: D2360 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Litter Tie Down Bracket

Start Date: 10/07/13 **Start Qty:** 4.00 *4* **Cust Item ID:**
Required Date: 10/07/13 **Req'd Qty:** 4.00 *4* **Customer:**
Reference:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				4	ϕ	13-10-18	DAS 34 9-89
150	M126125-								
Powdercoat	**Memo**	0.00							
Powder Coating	START TIME: 8:55 OVEN TEMPERATURE: 320° FINISH TIME: 9:25.								
160	QC3- Inspect Part Finish	0.00				4x		13/11/20	DAS 36 9-89
160									
QC	**Memo**	0.00							
Quality Control									
170		0.00				4x		13/11/20	DAS 36 9-89
170	Small Fab								
Small Fab	**Memo**	0.00							
Small Fab	Assemble as per dwg D2360								

Drill holes #D
0.146

DAS 13.11.20

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Item ID: D2360 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Litter Tie Down Bracket

Start Date: 10/07/13 **Start Qty:** 4.00 *4* **Cust Item ID:**
Required Date: 10/07/13 **Req'd Qty:** 4.00 *4* **Customer:**
Reference:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00 DAS 27 9-89				4			
180									
QC	**Memo**	0.00 B 11/21							
Quality Control									
190	Identify as per dwg & Stock Location ST 221	0.00							
190									
Packaging	**Memo**	0.00				4X		13-11-21 DAS 26 9-89	
Packaging									
200	QC21- Final Inspection - Work Order Release	0.00							
200									
QC	**Memo**	0.00							
Quality Control									

HJ/RM 13/11/21

MB-11-21

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Picklist Print

October-07-13 9:09:57 AM

Work Order ID: 108046
Parent Item: D2360
Parent Item Name: Litter Tie Down Bracket
Start Date: 10/07/13 **Required Date:** 10/07/13
Start Qty: 4.00 **Required Qty:** 4.00

Comments: IPP rev H 07.06.12 ecn 825 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN526C1032R18 Screw		Purchased	No			170	Each	580.0000	1	4	13/11/20		DAS 36 9-89
				Location		**Loc Qty**		**Loc Code**					
				FP001		93							
					4523	93							
				ST346		487							
					108079	387			4				
					110099	100							
D2002-015 Knob		Manufactured	No			170	Each	31.0000	2	8	13/11/20		DAS 36 9-89
				Location		**Loc Qty**		**Loc Code**					
				GA		31							
					106146	16			3				
					98570	15			3 5				
D2345 Lock Channel		Manufactured	No			170	Each	17.0000	1	4	13/11/20		DAS 36 9-89
				Location		**Loc Qty**		**Loc Code**					
				GA		17							
					100803	12			4				
					86349	5							
D2366 Lock Handle		Manufactured	No			170	Each	16.0000	2	8	13/11/20		DAS 36 9-89
				Location		**Loc Qty**		**Loc Code**					
				ST009		16							
					100836	12			2		B108416 (2)		
					98330	4			4				

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Picklist Print

October-07-13 9:09:58 AM

Work Order ID: 108046
Parent Item: D2360
Parent Item Name: Litter Tie Down Bracket

Start Date: 10/07/13 **Required Date:** 10/07/13
Start Qty: 4.00 **Required Qty:** 4.00

D2367 Handle Knob	Manufactured	No		170	Each	27.0000	1	4	13/11/20 DAS 36 9-89

Location	Loc Qty	Loc Code
ST009	27	
103859	17	
95711	10	

4

D2372 Quick Release	Manufactured	No		170	Each	7.0000	2	8	13/11/20 DAS 36 9-89

Location	Loc Qty	Loc Code
GA	7	
86001	2	
97848	5	

B108542 (8x)

D2373 Spring	Manufactured	No		170	Each	6.0000	1	4	13/11/20 DAS 36 9-89

Location	Loc Qty	Loc Code
ST009	6	
98341	6	

B102847 (3x)

1

D2444 Pip Pin Assembly	Manufactured	No		170	Each	12.0000	1	4	13/11/20 DAS 36 9-89

Location	Loc Qty	Loc Code
ST010	12	
101027	10	
105573	2	

B108491 (4x)

D6201 "T" Extrusion	Manufactured	No		100	f	49.9896	1.054	**4.4378948**

Location	Loc Qty	Loc Code
MAT012	20	
107076	20	
MAT028	29.98963153	
81421	1.54363153	
83987	16.8	
89645	0.246	
96808	11.4	

4.4375 MH 10/10/09

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Picklist Print

October-07-13 9:09:58 AM

Work Order ID: **108046**

Parent Item: **D2360** **Start Date:** 10/07/13 **Required Date:** 10/07/13

Parent Item Name: Litter Tie Down Bracket **Start Qty:** 4.00 **Required Qty:** 4.00

MS20470AD3-4 Rivet,Universal Head	Purchased	No		170	Each	8,017.0000	1	4

Location		Loc Qty	Loc Code
ST319		8017	
	111477	8017	

MS21042L3 Nut	Purchased	No		170	Each	5,472.0000	3	12

Location		Loc Qty	Loc Code
FP001		3	
	122141	3	
GA		18	
	122452	18	
ST314		304	
	111668	1	
	117885	32	
	119017	55	
	119075	138	
	123265	43	
	M126036	35	
ST506		1161	
	123900	849	
	124291	312	
ST510a		3986	
	M126275	29	
	M126333	3957	

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Picklist Print

October-07-13 9:09:58 AM

Work Order ID: 108046
Parent Item: D2360
Parent Item Name: Litter Tie Down Bracket

Start Date: 10/07/13 **Required Date:** 10/07/13
Start Qty: 4.00 **Required Qty:** 4.00

MS27039-1-13 Screw	Purchased	No		170	Each	915.0000	1	4	DAS 36 9-89

Location	Loc Qty	Loc Code
GA	2	
119736	2	
ST304	27	
119736	27	
ST306	388	
125654	388	
ST506	498	
124326	498	

MS27039-1-15 Screw	Purchased	No		170	Each	800.0000	2	8	DAS 36 9-89

Location	Loc Qty	Loc Code
ST506	800	
124326	800	

NAS1149D0332J Washer	Purchased	No		170	Each	1,417.0000	8	32	DAS 36 9-89

Location	Loc Qty	Loc Code
ST293	37	
125268	37	
ST294	1380	
122973	81	
125044	99	
m125807	1200	

M127374

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Picklist Print

October-07-13 9:09:58 AM

Work Order ID: **108046**

Parent Item: **D2360** **Start Date:** 10/07/13 **Required Date:** 10/07/13

Parent Item Name: Litter Tie Down Bracket **Start Qty:** 4.00 **Required Qty:** 4.00

NAS1149D0363J Washer	Purchased	No		170	Each	6,243.0000	2	8	DAS 36 9-89 13/11/20

Location		Loc Qty	Loc Code	
FP001		1		
	123248	1		
ST294		303		
	113068	11		
	124392	292		8
ST510a		5939		
	m126319	5939		

NAS679A3W Nut	Purchased	No		170	Each	162.0000	1	4	DAS 36 9-89 13/11/20

Location		Loc Qty	Loc Code	
GA		5		
	1463	5		
	2409	157		4

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric to O/S
☐ Cracks
☐ Crushed/Crimped
☐ Cuffs
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Ripples in Bend
☐ Torque Waves in Extrusion
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damaged
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drill Holes
☐ Drawing
☐ Finish
☐ Folio
☐ Grain
☐ Hardware
☐ Inspection Incomplete
☐ Instructions Incomplete/Unclear
☐ Maintenance
☐ Mislabeled
☐ Misread
☐ Offset
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Ovalized
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other _____

DART AEROSPACE LTD	Work Order:	108046
Description: Litter Tie Down Bracket (Locking)	Part Number:	D2341
Inspection Dwg: D2341 **Rev:** F		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.750	+/-0.010	1.750	✓		MH-04	Caliper
2.75	+/-0.030	2.753	✓		|	|
Ø0.242	+0.005/-0.001	.243	✓			
Ø0.191	+0.005/-0.001	.192	✓			
R0.25	+/-0.030	.25	✓		rad gauge	—
R0.40	+/-0.030	.40	✓		rad gauge	—
12.50	+/-0.030	12.50	✓		Tape	MH-07
11.750	+/-0.010	11.758	✓		CNC-02	Caliper
11.00	+/-0.030	11.00	✓		|	|
7.00	+/-0.030	7.004	✓			
6.250	+/-0.010	6.25	✓			
5.50	+/-0.030	5.50	✓			
1.50	+/-0.030	1.506	✓		MH-04	Caliper
0.750	+/-0.010	.758	✓		|	|
0.400	+/-0.010	.400	✓			
1.584	+/-0.010	1.580	✓			
2.610	+/-0.010	2.607	✓			
0.250	+/-0.010	.254	✓			
0.844	+/-0.010	.845	✓			
Ø0.250	+/-0.010	.250	✓			
0.750	+/-0.010	.753	✓			
3.313	+/-0.010	3.312	✓			
4.250	+/-0.010	4.250	✓		|	|
1.250	+/-0.010	1.241	—			

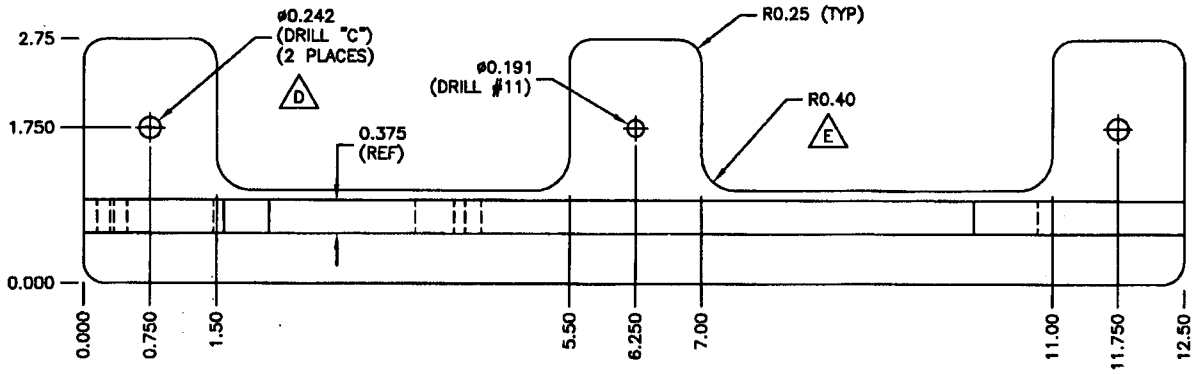
Measured by:	MH/DM	Audited by:	DAS 40 8-89	Prototype Approval:	N/A
Date:	13/10/16	Date:	13/10/16	Date:	N/A

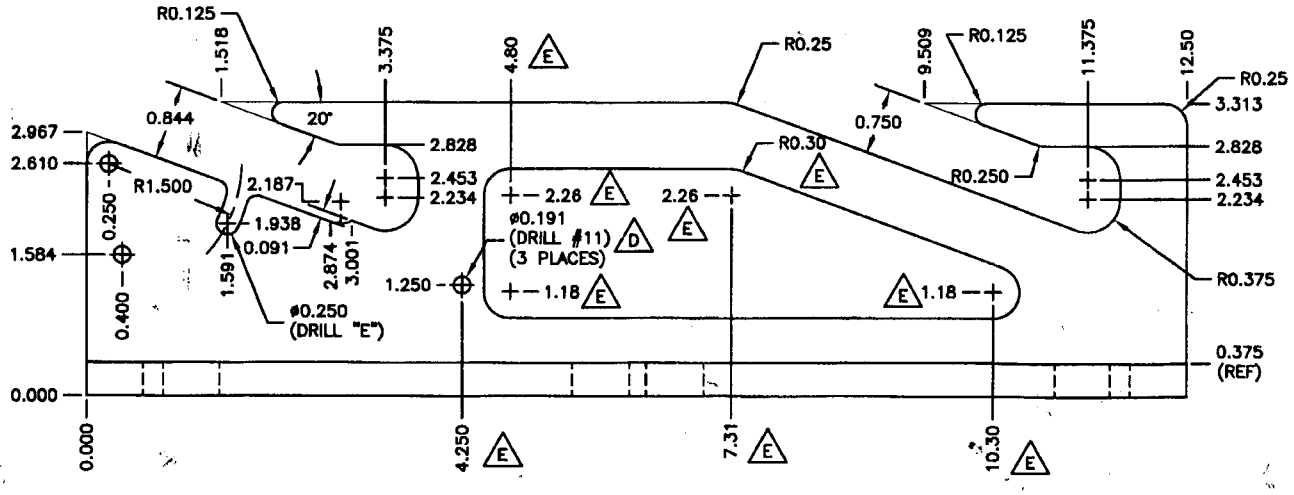
Rev	Date	Change	Revised by	Approved
A	06.05.24	New Issue P/O D2360	KJ/JLM	
B	07.07.17	Dwg Rev. updated	KJ/JLM	
C	10.02.02	Dimensions updated	KJ	

DESIGN	DRAWN BY	DART AEROSPACE LTD
BW	SC	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. REV. F
		D2341 SHEET 1 OF 1
DATE		TITLE SCALE
07.06.07		LITTER TIE DOWN BRACKET (LOCKING) 1:2

A	95.01.13	NEW ISSUE
B	95.02.14	MODIFIED LOCK
D	95.02.20	CHANGES TO DIAMETERS
E	97.10.01	CHANGES FOR MACHINING
F	07.06.07	REVISED NOTES; FINISH WAS ANODIZE

80-01-21 SCW 96/08/01





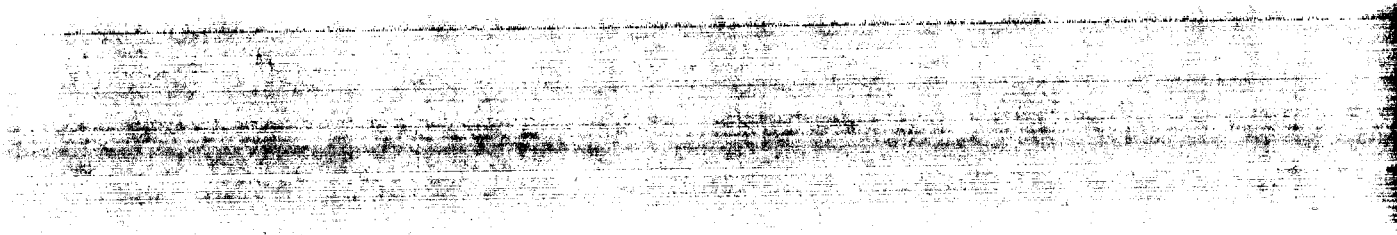
D2341 LITTER TIE DOWN BRACKET (LOCKING)

1) MATERIAL: MAKE FROM D6201-0125 EXTRUSION (6061-T6/T651 PER QQ-A-200/8)
F 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (REF. 4.3.5.1) PER QSI 005 4.3
3) BREAK ALL SHARP EDGES TO 0.005 TO 0.010
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
6) IDENTIFY WITH DART P/N "D2341" USING FINE POINT PERMANENT INK MARKER

RELEASED
07.06.22

Copyright © 1995 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
BW	CB	
CHECKED	APPROVED	DRAWING NO. REV. D
CE		D2360 SHEET 1 OF 2
DATE		TITLE SCALE
07.06.06		LITTER TIE DOWN ASSEMBLY (LOCKING) NTS

A	95.02.10	NEW ISSUE
B	95.02.20	RE-DESIGN
C	97.08.27	ADD MS20470AD3-4 RIVET
D	07.06.06	D2002-015 WAS D2376; SECTION B-B QTY(2) AN960JD10 WAS QTY(3) QTY(8) AN960JD10L WAS QTY(5)

RELEASED
97.06.07

PARTS LIST:

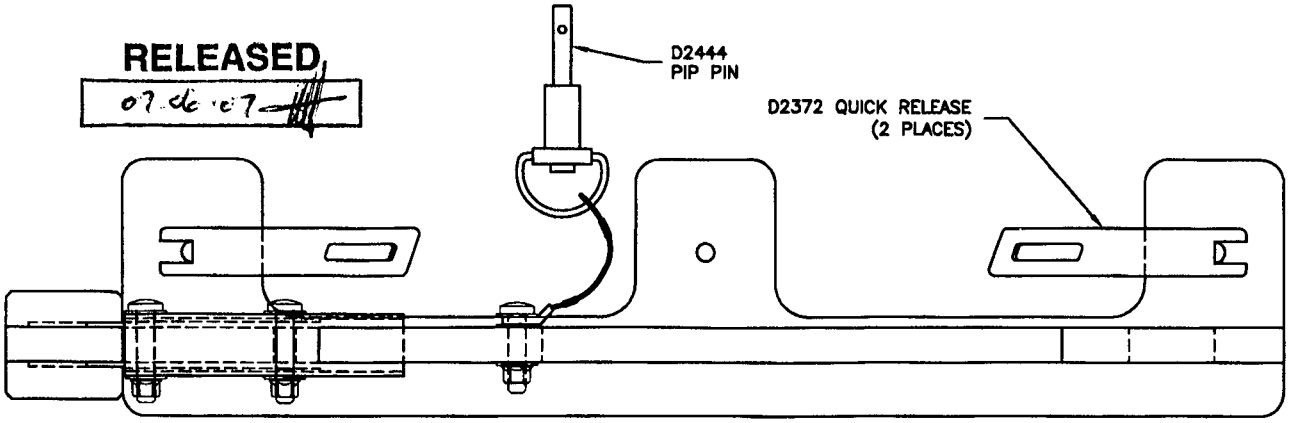
	QTY	PART NUMBER	DESCRIPTION
	X	D2360	LITTER TIE DOWN ASSEMBLY (LOCKING)
	1	D2341	LITTER TIE DOWN (LOCKING)
	1	D2345	LOCK CHANNEL
	2	D2366	LOCK HANDLE
	1	D2367	KNOB (DELRIN)
	2	D2372	QUICK RELEASE FASTENERS
	1	D2373	SPRING
△D	2	D2002-015	KNOB (DELRIN)
	1	D2444	PIP PIN
	1	AN526C1032R18	SCREW
△D	2	AN960JD10	WASHER
△D	8	AN960JD10L	WASHER
	1	MS20470AD3-4	RIVET
	3	MS21042L3	NUT (OR MS21042-3)
	1	MS27039-1-13	SCREW
	2	MS27039-1-15	SCREW
	1	NAS679A3W	NUT

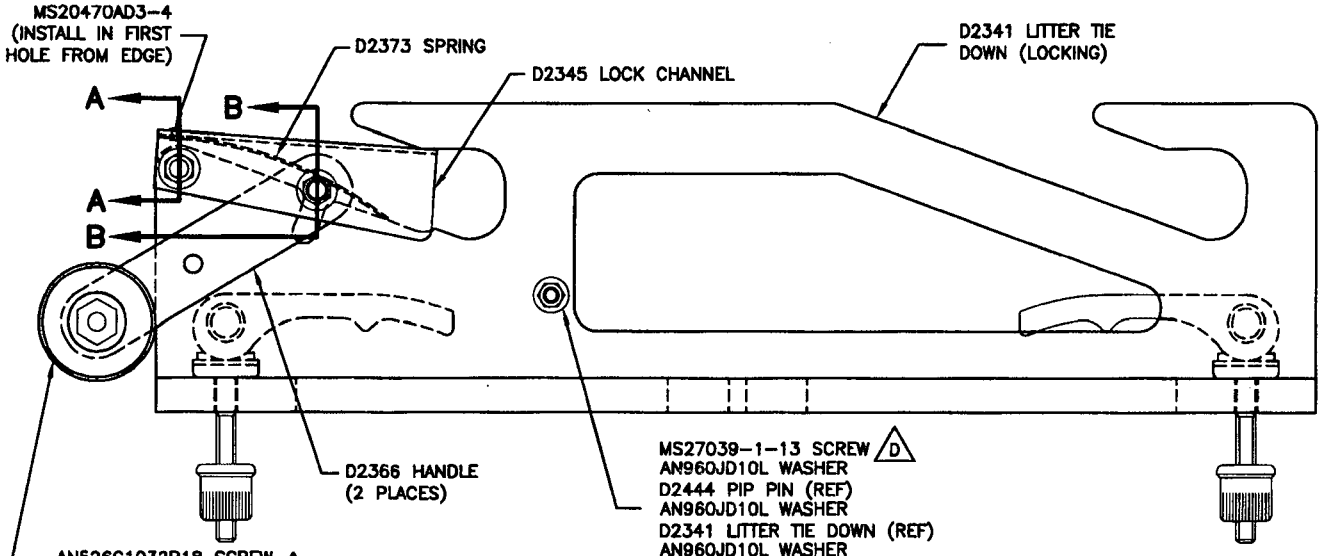
Copyright © 1995 by DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

108076

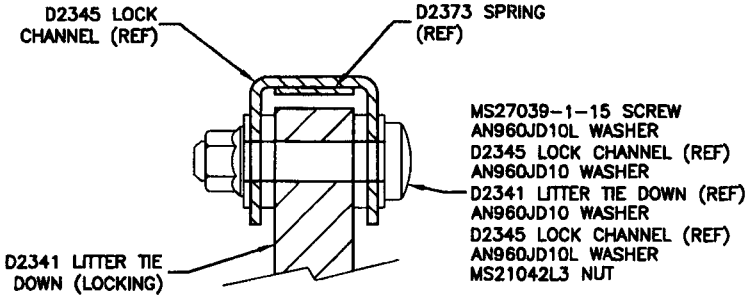
DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
BW	CB		
CHECKED	APPROVED	DRAWING NO.	REV. D
CE		D2360	SHEET 2 OF 2
DATE		TITLE	SCALE
07.06.06		LITTER TIE DOWN ASSEMBLY (LOCKING)	NTS

RELEASED
07 de c 7

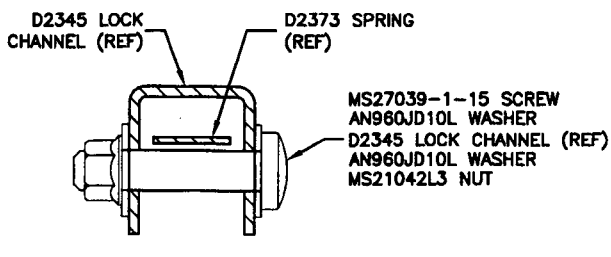




D2360 LITTER TIE DOWN ASSEMBLY (LOCKING)



SECTION A-A
(SCALE 1:1)



SECTION B-B (D)
(SCALE 1:1)

Copyright © 1995 by DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.